EL977166394US

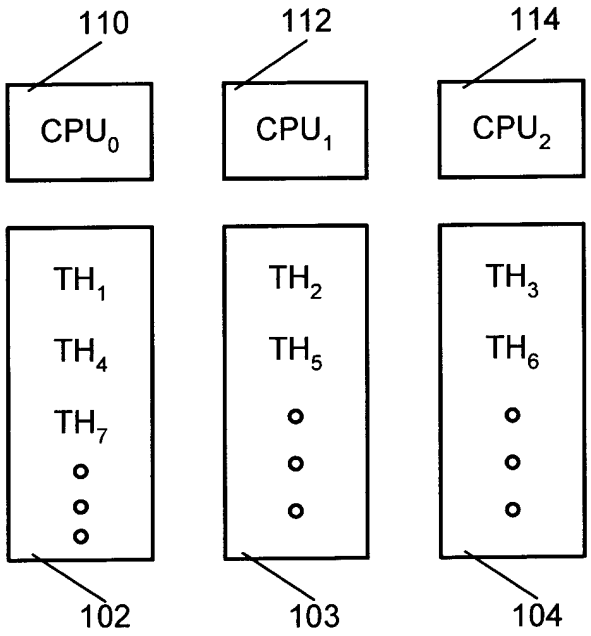

FIG. 1(a)

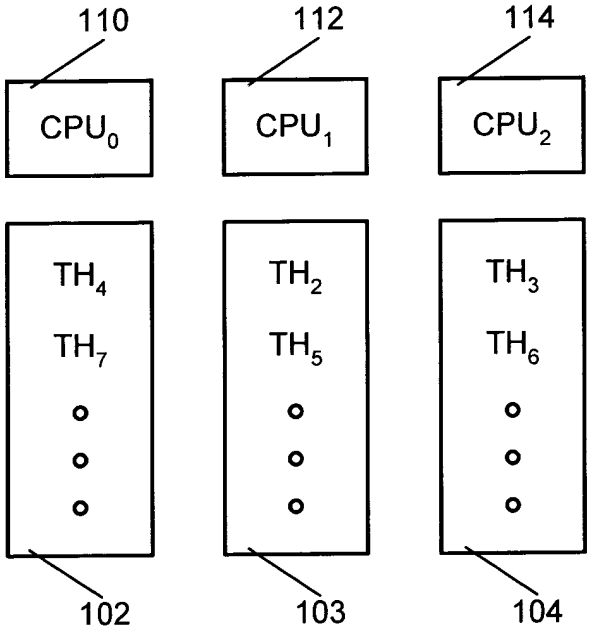

FIG. 1(b)

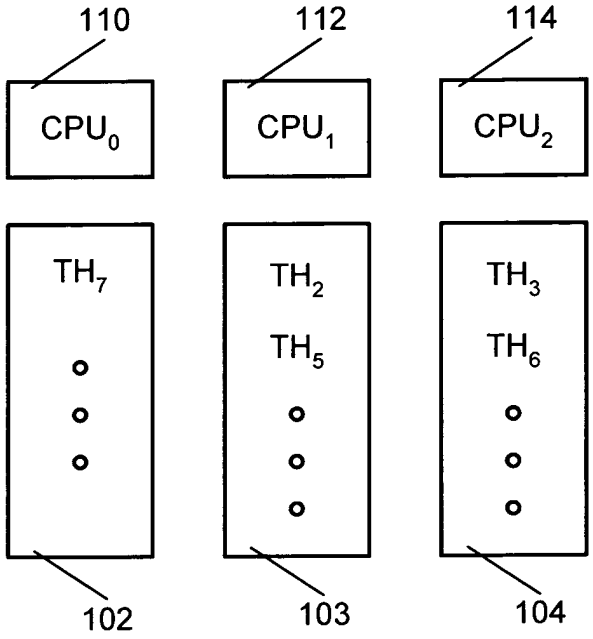
110
112
114
CPU0
CPU1
CPU2
TH7
TH2
TH5
TH3
TH6
102
103
104

FIG. 1(c)

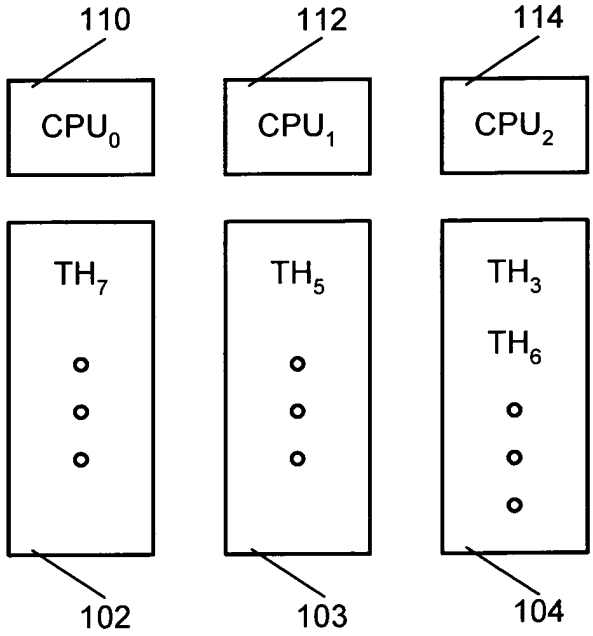
110
112
114
CPU0
CPU1
CPU2
TH7
TH5
TH3
TH6
102
103
104

FIG. 1(d)

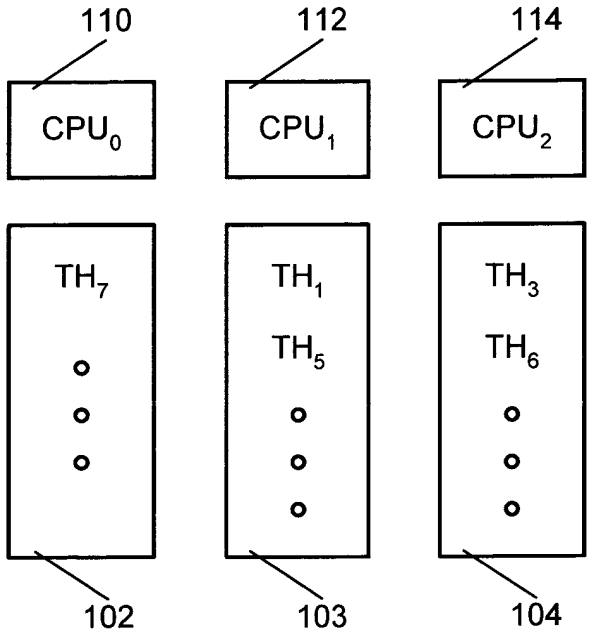
110
112
114
CPU0
CPU1
CPU2
TH7
TH1
TH5
TH3
TH6
102
103
104

FIG. 1(e)

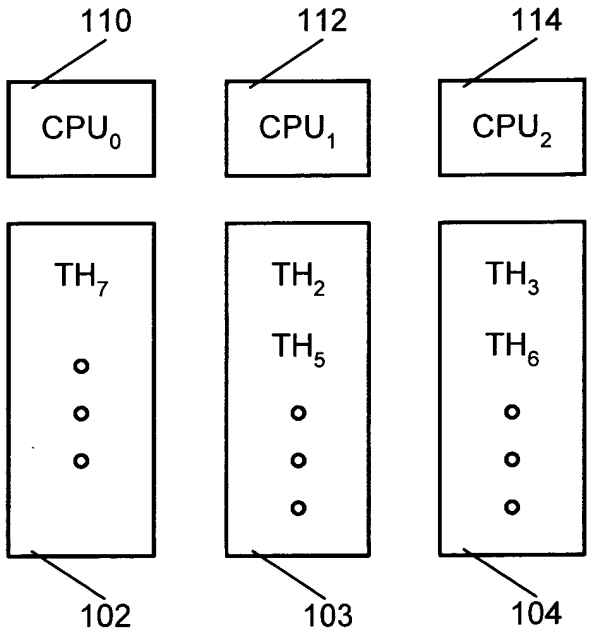
110
112
114
CPU0
CPU1
CPU2
TH7
TH2
TH5
TH3
TH6
102
103
104

FIG. 1(f)

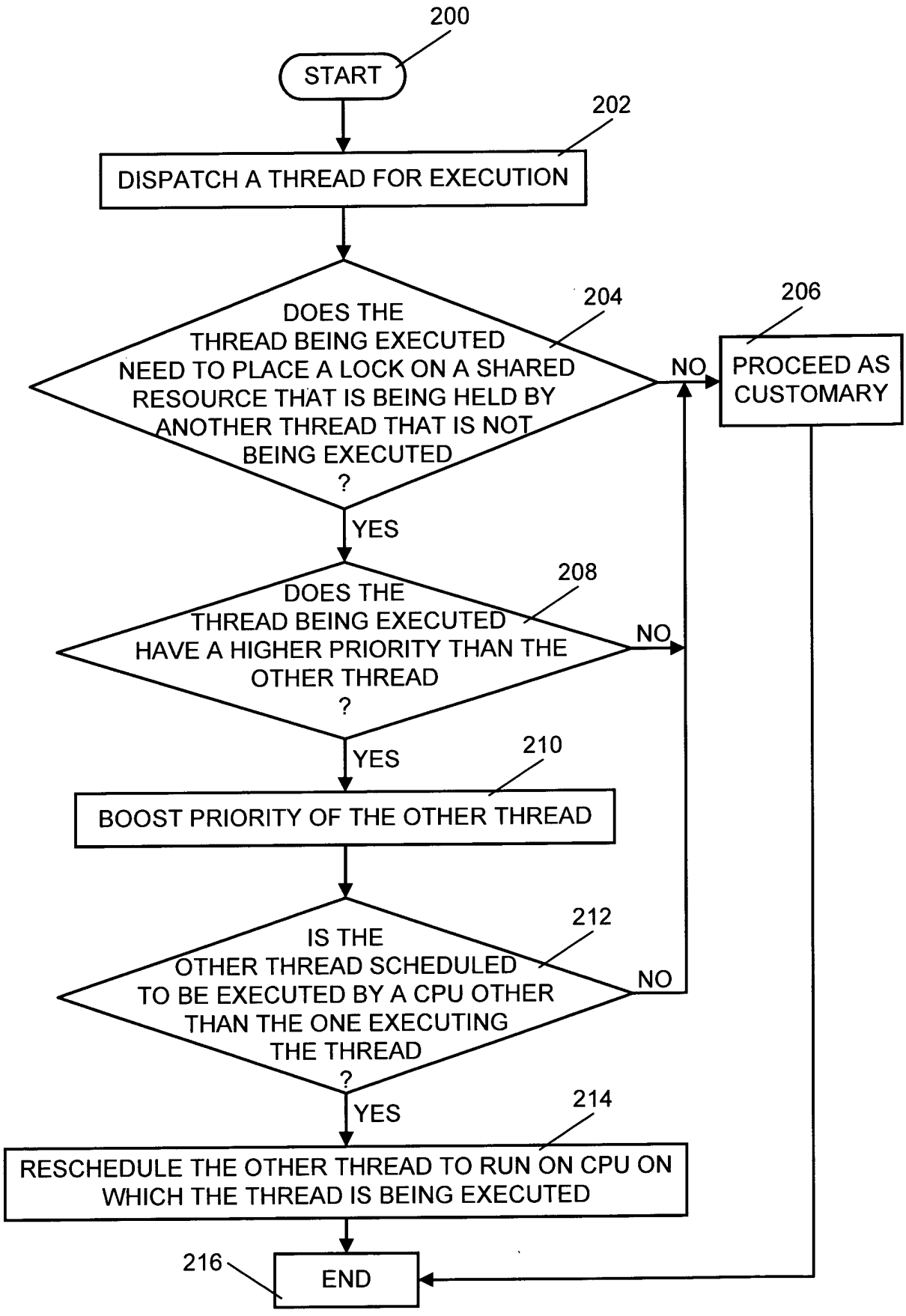
200
START
202
DISPATCH A THREAD FOR EXECUTION
204
DOES THE THREAD BEING EXECUTED NEED TO PLACE A LOCK ON A SHARED RESOURCE THAT IS BEING HELD BY ANOTHER THREAD THAT IS NOT BEING EXECUTED ?
NO
206
PROCEED AS CUSTOMARY
YES
208
DOES THE THREAD BEING EXECUTED HAVE A HIGHER PRIORITY THAN THE OTHER THREAD ?
NO
YES
210
BOOST PRIORITY OF THE OTHER THREAD
212
IS THE OTHER THREAD SCHEDULED TO BE EXECUTED BY A CPU OTHER THAN THE ONE EXECUTING THE THREAD ?
NO
YES
214
RESCHEDULE THE OTHER THREAD TO RUN ON CPU ON WHICH THE THREAD IS BEING EXECUTED
216
END

FIG. 2

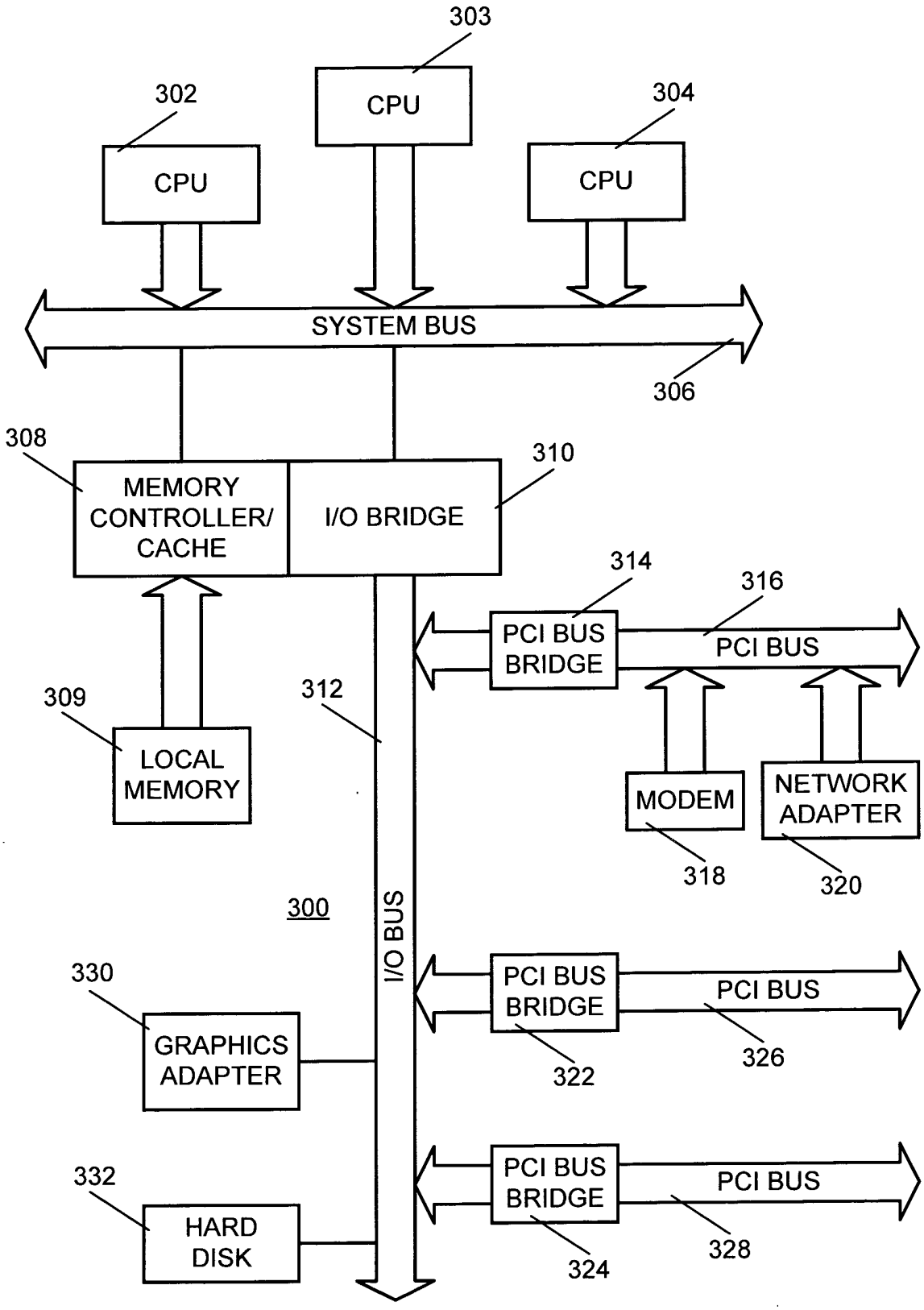
303
CPU
302
CPU
304
CPU
SYSTEM BUS
306
308
MEMORY CONTROLLER/ CACHE
310
I/O BRIDGE
314
316
PCI BUS BRIDGE
PCI BUS
309
LOCAL MEMORY
312
MODEM
NETWORK ADAPTER
318
320
300
I/O BUS
330
GRAPHICS ADAPTER
PCI BUS BRIDGE
PCI BUS
322
326
332
HARD DISK
PCI BUS BRIDGE
PCI BUS
324
328

FIG.3